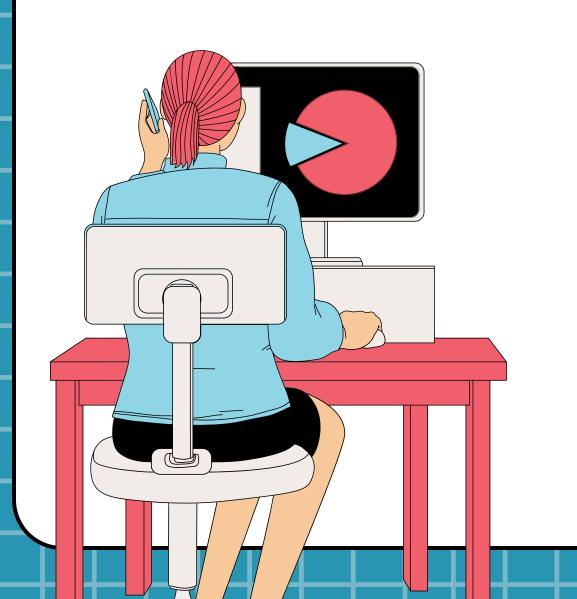
PRACTICAL CASE:



PENS AND PRINTERS

Practical Exam Data Analyst Professional Manuel Veiga

BUSINESS GOALS

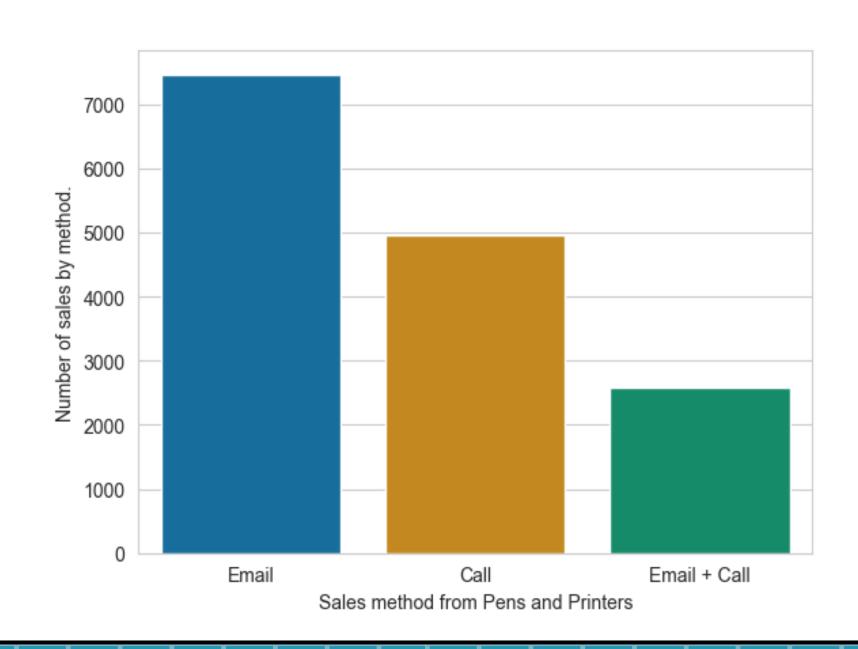
Pens and Printers have been on the office products for quite a long time and the sales team are preparing the best way to promote a new line of products related with brainstorming. They need to find the best sales strategy.

- **Email:** Writing to the customer twice: At the launch of the product and after 3 weeks.
- Call: Customer in this group are called by an employee in sales team, which spend around 30 minutes.
- **Email + Call**: Customer receives an email and after 1 week they receive a call, spending around 10 minutes.

In addition, we can **find some additional differences between groups** of customers and give a relevant business goal.

OUTCOME

For each type of approach we are looking for the number of customers between each method. We have obtained the following results:

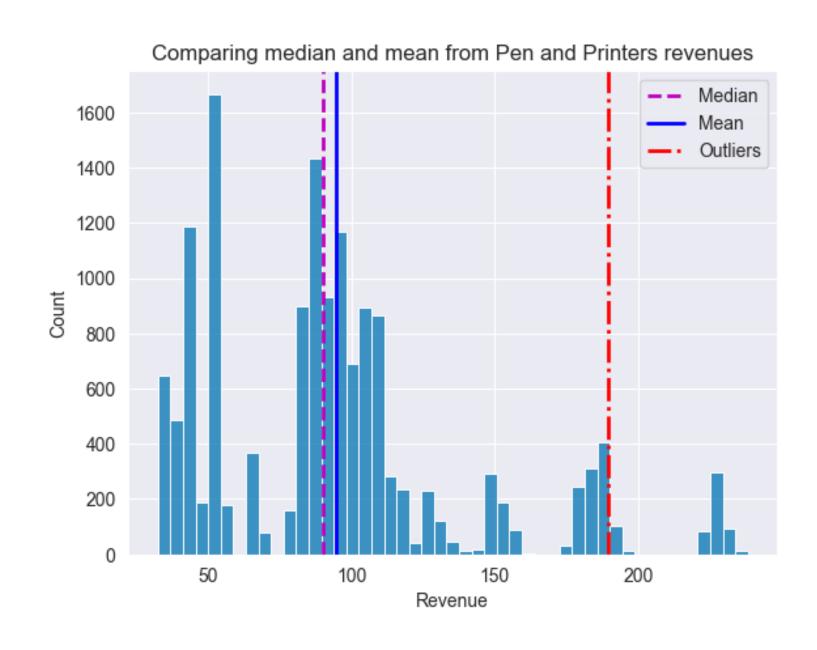


- For the "Email" method we have obtained 7466 customers.
- For the "Call" method, a total of 4962 customers have been contacted.
- Lastly, 2572 have been contacted using the "*Email + Call*" method.

Additionally, the sum of "Call" and "Email + Call" method are as effective as the total number of customer contacted through "Email".

DISTRIBUTION OF REVENUES

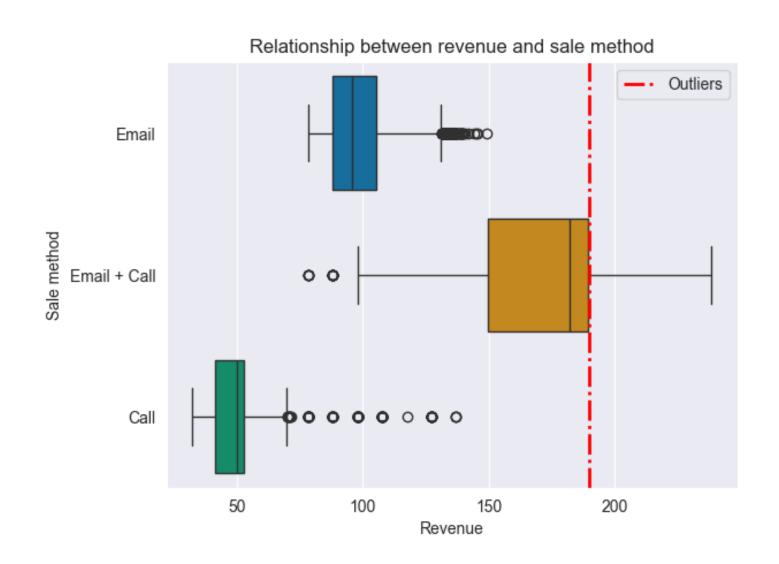
Talking about how the revenue evolves in general, we see that there are enormous differences on how much our customers spend.

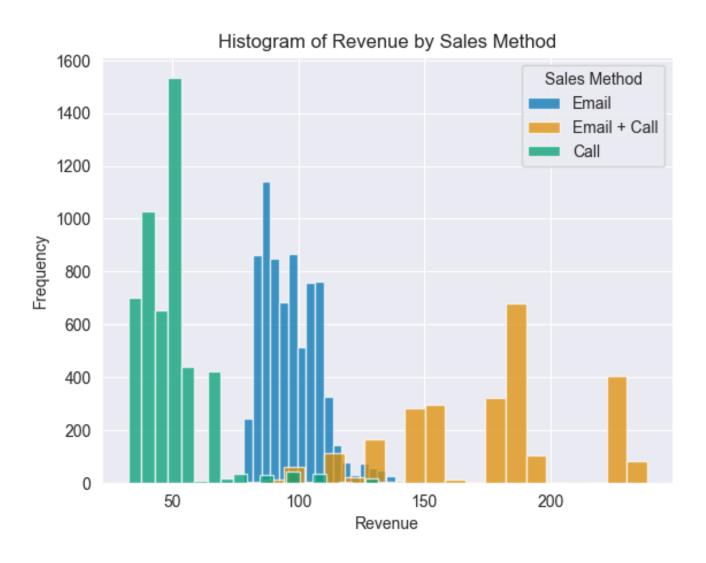


- The mean reveue that we have obtained is 94.68 dollars. The median has been 90.30 dollars.
- The client that has spent less, has purchased 32.54 dollars in product, whereas the one that has spent the most did a purchase of 238 dollars, which is quite high.

COMPARING MEDIAN REVENUE

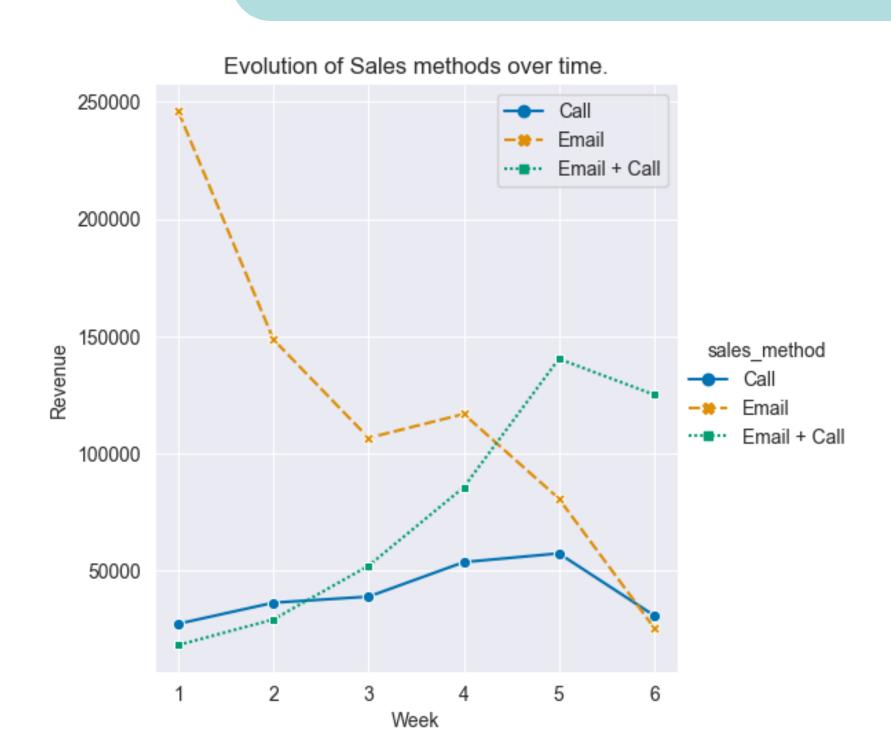
This opens up the question of our sales methods: Do people that purchase through different methods spend different amounts of money?





We see that the "Email + Call" method is producing the biggest revenues, while the "Email" ones are around 100 dollars each and the call method around 50 dollars.

EVOLUTION OVER TIME



Between the different sales methods we see that the "Email" method is much more effective at the beginning of the product launch.

On the other hand, we see that the performance of the "Call" method is really poor so it is important to discard it to improve our sales.

Not quite sure about the best method for the third to fifth week.

METHOD ADVICE

We saw in the email that we receive for the *New Product Sales Method* that the time we spend using each method is:

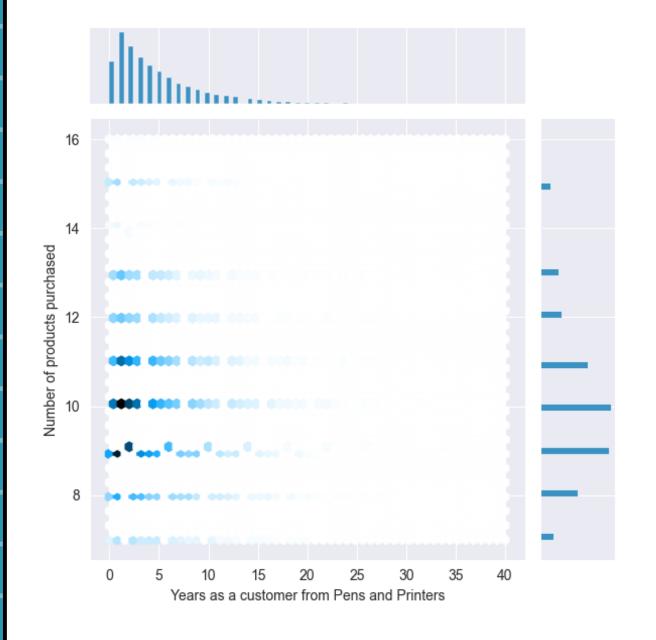
- 30 minutes for "Call" method.
- 10 minutes for "Email + Call" method.
- Almost no time spend on "Email" method.

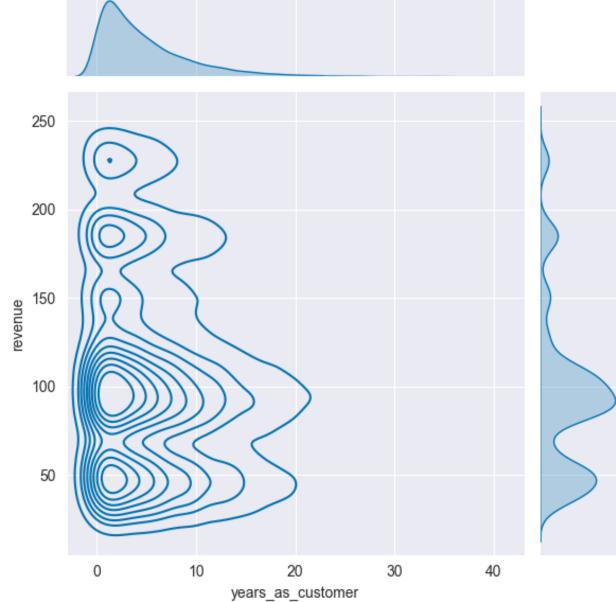
Since the revenue that we have obtained from the "Call" is **the lowest from all of them**, it **spends around 30 minutes for each call** and also is **the one that needs more employees and more time** involved, **it is not worth it to continue using it**. For customers that are using the "Call" method I would recommend to **switch that employees to the "Email method** as it is currently the most effective way to obtain a customer.

Nevertheless, I would have an eye on the "Email + Call" method to have a constant cash flow and see if it still effective in the future. Delving deeper into the 'Email + Call' method will allow us to better manage surplus stock, enabling us to dispose of older units rather than just focusing on selling new products.

ADDITIONAL INFORMATION

I want to investigate a bit about how it is related the years as a customer with the way they purchase and how much the client have spent on our products.

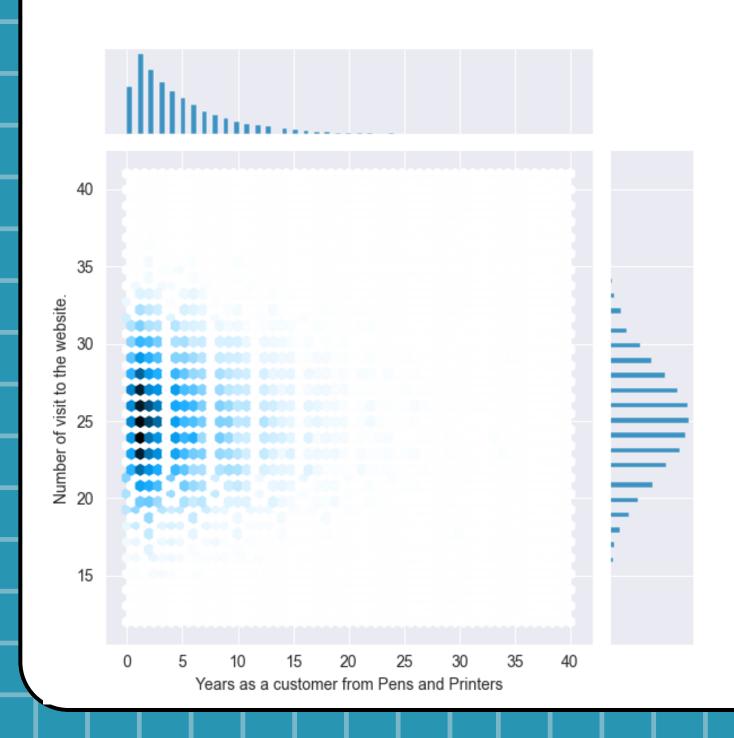




The first graphic shows us that most clients purchase between 9 and 11 products, and they have been purchasing us for the last 2 years.

The second one shows that they tend to spend around 100 dollars mainly or 50 dollars, also they are clients that they have been with us for 2 years.

A GOOD METRIC FOR YOUNG CUSTOMERS



Lastly, we discover an interesting metric that we deduce from the last 2 graphics: Most of our customers have been purchasing during 2 years, so probably they are a start-up or young entrepreneurs, as they have been less time on the market.

This is the main public for brainstorming and new techniques in the entrepreneurship world, and, as they are familiarized with technology, we expect from them to use our website.

The graphic shows the relation between the number of visits to our website and the years as a customer: The youngest customers visit our website much more than older customers and are a perfect public for brainstorming tools.

BUSINESS METRICS

We see that the biggest density and our biggest sells are in the sector that tend to use Email, we can use both **the revenue of Email method** and **the number of visits to our website** as a couple of really good metrics.

Having in consideration that the revenue from the Call method during this lasts 6 months was around **244000 dollars** and the Email method is around **724000 dollars**, we expect to increase the revenue of the Email method at least the quantity of the Call method, so we expect around **968000 dollars for the next six months in the Email sale method as a good sign.**

For the number of visits, as the number of customers through Call method was around 4900 people, and the number of visits are around 25 times for 7400 customers for the Email method, we expect this variable to grow over 25 visits every 6 months per customer as a good sign.

RECOMMENDATION

After the meeting with the executive team, I would recommend to focus on the following steps:

- Data Collection for in-depth analysis:
 - New kinds of data: Which kind of products are our clients purchasing? Are they products
 focused on brainstorming and creativity or standard and traditional products?
 - What about a new variable about the text written in the Email and **perform some A/B testings**?
 - What about how much time do our clients spend on our website?
 - Improve data quality: How much time are they spending on the phone for the "Email + Call" method?
- Focusing on the "Email" method during the first three weeks and during the next three weeks using the "Email + Call" method to balance the cash flow.
- Selling packs of products of around 100 dollars or less to customers that are contacted through Email, while the most expensive products should remain for people that are contacted via Email + Call.
- Create a marketing campaign with the target being young entrepreneurs / start-ups who are looking for products related to brainstorming in a digital environment.